TECHNICAL DATA









1 WTU decentralised

- 2 co, wall sensor
- **3** Display WTU
- 4 Ceiling diffuser





Regulation

The WTU-EC-IE is supplied with a Regin controller and a digital control panel with cable. The control panel has the following functions:

- MOD bus/ BAC-net/Exoline over TCP/IP and RS-485 (for full control from BMS system)
- Output for 0-10V, on/off heating and/or cooling
- Multilingual menu structure (including Dutch)
- Alarm output/input
- Fully automatic control
- Engine speeds adjustable on the display
- Integrated defrost function
- Extensive CO2 control options, e.g. also on the basis of a weekly timer
- Readout and control via laptop with Corrigo E-tool Ventilion (download free of charge from orcon.nl)
- Filter indication
- The WTU-1000, 1500 and 2000 models are suitable for connection to DX battery and Freeverter heat pump for top cooling and heating.

Want to know more about an exceptional indoor climate?

Our goal is to provide everyone with the most comfortable and healthy indoor climate possible. An environment in which people feel comfortable and function optimally. With this vision in mind, we have developed into the leading supplier of ventilation systems for residential and commercial construction.



Orcon Academ

Being a leader in products also means being a leader in knowledge. Orcon closely follows technological developments and legislation and incorporates these in various training courses. Visit our website for more information or to register for a training course.



Green Igloo

Green Igloo' is the green label of Orcon and its sister company green igloo Thercon.

> Green Igloo' stands for an efficient ventilation system and a sustainable heating system in a well insulated low-energy house, school or office. You can read more about Green Igloo at www.greenigloo.nl

Het office of Orcon and Thercon in Veenendaal is a perfect example of a modern and energy efficient office building, fully airconditioned according to the Green Igloo label. Follow the energy consumption of our building closely with the Energy Monitor at www.greenigloo.nl/energiemonitor.

Maatschappelijk verantwoord ondernemen

An exceptional indoor climate also means attention to the outdoor climate. We feel responsible for people and the environment. For example, we use recyclable materials as much as possible in the development of our products and we employ people from sheltered employment in our production process.

More information about school concepts: www.orcon.nl/ventilatie-in-scholen

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WTU-EC-IE

Compact and extremely quiet MVHR appliances for schools





WTU-EC-IE

Flat heat recovery units for schools



PEOPLE PERFORM BETTER IN A HEALTHY ENVIRONMENT WITH SUFFICIENT OXYGEN. THIS CERTAINLY APPLIES TO SCHOOLS WHERE MANY PUPILS COME TOGETHER IN ONE ROOM. NEVERTHELESS, MORE THAN 70% OF ALL DUTCH SCHOOLS STILL STRUGGLE WITH AN EXCESSIVELY HIGH CO2 CONTENT IN THE CLASSROOMS. THAT IS WHY ORCON HAS DEVELOPED THE WTU-EC-IE. THIS SILENT BALANCE VENTILATION SYSTEM WITH HEAT RECOVERY FULLY COMPLIES WITH THE 'PROGRAMME OF REQUIREMENTS FOR FRESH SCHOOLS'. PROGRAMME OF REQUIREMENTS FOR FRESH SCHOOLS'. IT PROVIDES EACH INDIVIDUAL ROOM WITH HEALTHY, FRESH AIR, THUS CONTRIBUTING TO BETTER CONCENTRATION AND LEARNING PERFORMANCE.

No condensate drain required

The WTU-EC-IE is equipped with an enthalpy heat exchanger which recovers both heat and humidity. This keeps the temperature and relative humidity at a comfortable level. An additional advantage: no condensate drain is required.

Cool air in summer

For optimum comfort, the WTU-EC-IE is equipped as standard with an automatic bypass. The bypass ensures that the building does not heat up further in summer by blowing fresh filtered air at night.

Energy-saving

To ensure that no heat is lost, the WTU-EC-IE heats the cold incoming air with the warm outgoing air. It is therefore the most energy-efficient way of ventilation. In addition, the energy consumption is very low thanks to the use of the latest technologies. The applied EC-motors with • Filter indicator backward-curved blades are equipped with DC technology, resulting in a very high efficiency, high energy savings and a long lifetime.

WHAT MAKES THE WTU-EC-IE SPECIAL?

- Conforms to the fresh schools programme (class B) Comfortable indoor climate with filtered and preheated air
- Ventilation controlled per room
- High energy savings
- Low noise level because the motors are mounted in an EPS core with double housing and extra insulation
- Automatic bypass control
- Easy to install above a suspended ceiling, thanks to the low mounting height
- Plug and play installation, plug and play
- Easy to maintain thanks to service hatches
- Capacity 250 to 2. 000 m3/h
- ERP compliant 2018
- CO2 control and reheating as standard
- Easy to integrate into a TCP/IP network, can be read centrally e.g. by a janitor
- Integrated smart controller and display

DIMENSION

Device dimensions					
	A	В	с	ØD	E
WTU-250-EC-IE	808	956	358	Ø160	404
WTU-600-EC-IE	981	1186	416	Ø200	505
WTU-800-EC-IE	1071	1264	472	Ø250	590
WTU-1000-EC-IE	1351	1657	472	Ø300	720
WTU-1500-EC-IE	1185	1856	614	Ø355	623
WTU-2000-EC-IE	1485	1856	614	Ø355	921

TOP VIEW



S 700 700 760 800 800	Туре	WTU-250-EC-IE	WTU-600-EC-IE	WTU-800-EC-IE	WTU-1000-EC-IE	WTU-1500-EC-IE	WTU-2000-EC-I
	S	700	700	760	760	800	800



S: indicates the space for service on the side of the device in millimetres

SPECIFICATIONS

Туре		WTU-250-EC-IE	WTU-600-EC-IE	WTU-800-EC-IE	WTU-1000-EC-IE	WTU-1500-EC-IE	WTU-2000-EC-IE
Nominal voltage		230 V/ 1 ~/ 50 Hz.	230 V/ 1 ~/ 50 Hz.	230 V/ 1 ~/ 50 Hz.	230 V/ 1 ~/ 50 Hz.	230 V/ 1 ~/ 50 Hz.	230 V/ 1 ~/ 50 Hz.
Typology				NR	VU		
Drive type				V	SD		
Heat recovery type				OV	erig		
Heat recovery type [1]	%	75	73	73	76	75	75
Reference flow	m³/h	200	440	800	1000	1200	1700
Maximum flow rate	m³/h	374	760	921	1425	2280	2780
Electrical input power ref. flow rate	W	44	97	244	256	351	462
Maximum power consumption	W	52	218	290	300	1010	1010
SFP int. [1]	W(m³/s)	317	436	757	575	730	745
Air velocity at reference flow	m/s	0,6	0,8	1,1	1	1,2	1,3
Reference external pressure differential Pa		100					
Internal pressure drop ventilation components	Pa	67	113	240	164	226	218
Internal pressure drop non ventilation components	Pa	nvt					
Static efficiency fans according to (EU 327/ 2001)	%	41	44	50	49	54	58
External unit leakage	%	2,3	1,9	0,4	0,2	1,3	0,6
Filter type according to ISO 16890	D	Coarse 45%					
Optional filter type supply air according to ISO 16890		ePM1 50%					
Description for visual filter indication for NRVU		www.orcon.nl/categorie/wtu-ec-ie-decentrale-wtw-unit-utiliteit/					
Internet address for service and maintenance		www.orcon.nl/categorie/wtu-ec-ie-decentrale-wtw-unit-utiliteit/					
Net weight of appliance	kg	52	83	97	135	164	179

** Measured at 1.5 metres distance from the unit's casing @ 250 Hz sound band.

ACCESSORIES





CBRF preheate



CBA reheater







CO, channel sensor CO, wall sensor

Grids







VBC hot water battery

ZTV 2-away valve ZTR 3-away valve RVAZ Klepaandrijving Channel sensor





1 Heat exchanger	5 EPS inside
2 Exhaust and supply air	6 Double housing
fan with EC technology	with insulation
3 Exhaust and supply filters	7 Channel connections
4 Regin controller	8 Optional pollen filter (ePM1)



Housing

- Double sheet metal 200 gr/m2 galvanised material
- Interior is 40 kg/m2 EPS, aerodynamically shaped



EPS parts

By using aerodynamically shaped EPS pieces, the air is optimally guided along the exchanger. This ensures that the motors can work as efficiently as possible, so that the energy consumption and noise level are as low as possible.